

AMENDMENT AND RESPONSE TO OFFICE ACTION

It is believed that no additional fee is required with this submission. However, should a fee be required, the Commissioner is hereby authorized to charge the fee to Deposit Account No. 50-1868.

Amendment

In the Specification

✓ Please replace the title of the invention with the following title:

--FUSION ENZYMES CATALYZING SUCCESSIVE REACTIONS OF THE
POLYHYDROXYALKANOATE PATHWAY--

In the Claims

1. (Four times amended) A protein fusion having a formula selected from the group consisting of E1-L_n-E2 and E2-L_n-E1, wherein E1 and E2 catalyze successive reactions in a polyhydroxyalkanoate biosynthetic pathway and are each selected from the group consisting of β -ketothiolases, acyl-CoA reductases, polyhydroxyalkanoate synthases, poly(3-hydroxybutyrate) synthases, phasins, enoyl-CoA hydratases, and beta-hydroxyacyl-ACP::coenzyme-A transferase, in which linker L_n is a peptide of n amino acids that link E1 to E2 or E2 to E1, and wherein [the expression of the fusion protein is under the control of a single promoter resulting in expression of both catalytically active E1 and E2.

2. (Twice amended) The fusion of claim 1 wherein E1 and E2 are selected from the group consisting of [beta] β -ketothiolase (phbA) and acyl-CoA reductase (phbB); phbB and